Remarks

The undersigned's Remarks are preceded by related comments of the Examiner, presented in small bold-faced type.

1.   The abstract of the disclosure is objected to because the abstract should be a single paragraph and not exceed 150 words. Correction is required. See MPEP § 608.01(b).

The abstract has been modified and no longer exceeds 150 words. A replacement abstract sheet is provided herewith.

2.   Figure 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

A replacement Figure 2 with the legend 'Prior Art' added is provided herewith.

4.   Claims 10-12 and 18 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 10-12 and 18 are all drawn to nonfunctional descriptive matter in the form of an arrangement of a data signal. Note MPEP section 2106.

The Examiner's rejection is respectfully traversed. It is well settled that a "signal" having a practical application is a patentable article of manufacture. See, for example, MPEP 2106 IV.B.1(c) (MPEG Rev. 2, May 2004, page 2100-14), which states:

> a signal claim directed to a practical application of
> electromagnetic energy is statutory regardless of its
> transitory nature. See O'Reilly, 56 U.S. at 114-19; In re
> Breslow, 616 F.2d 516, 519-21, 205 USPQ 221, 225-26 (CCPA
> 1980).
> (MPEP 21-6 IV.B.1(c))

Accordingly, the undersigned respectfully submits that the Examiner's rejection of claims 10-12 and 18 is contrary to the MPEG and applicable law as claims 10-12 and 18 are directed to a "signal" having a practical application in the CAD/CAM arts. For example, claims 10-12 each recite a signal having the practical applications of, inter alia, (i) "representing a physical configuration of an object" and (ii) "representing a plurality of graphic tools coupled to said

object, said graphic tools each representing a command function for modifying the geometry of the object". Claim 18 similarly recites a signal having the practical applications of (i) "representing a physical configuration of an object" and (ii) and "representing a plurality of graphic tools coupled to a portion of said object, said graphic tools each representing a command function for modifying the geometry of the object.

For at least the reasons that a signal directed to a practical application is statutory, and each of claims 10-12 and 18 do recite a signal having a practical application, the undersigned respectfully submits that the Examiner's rejection of claims 10-12 and 18 as non-statutory is improper and it is respectfully requested that the Examiner withdraw this rejection.

> 6. Claims 1,2,7,8,10,11,13,14, and 16-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Harada et al. 5,844,563.
>
> Harada et al. teaches a computer implemented modeling system, displaying an object, receiving an input from the user specifying the attachment of a graphic tool to the object and with the graphic tool representing a command to modify the object, saving an object history, displaying the graphic tools, automatically modifying the geometry of the object in response to a command or commands, and concurrently active tools. See the abstract; figures; col. 1, line 7 to col. 2, line 14; col. 2, line 64 to col. 4, line 8; col. 5, line 31 to col. 6, line 16; col. 7, line 37 to col. 10, line 29; and the claims.

The rejection of claims 1, 2, 7, 8, 10, 11, 13, 14, and 16-19 as anticipated by Harada is respectfully traversed.

Harada is understood as disclosing a form of automatic updating of a modeled object that is different from what is taught and claimed in the present application. Generally speaking, what Harada teaches is the compiling of modification history data (including a command, a parameter and an index indicative of the part of the model being affected by the command). See, e.g., Harada, col. 3, lines 40 to 64. Harada's modification history data may be used to implement "Undo" and "Redo" functions allowing a designer to, e.g., "undo" a chain of operations, change parameters of a modeled object, and then "redo" a series of undone operations on the parameter-changed model. See, e.g., Harada, columns 1-4.

While claims 1, 2, 7, 8, 10, 11, 13, 14, and 16-19 are each directed to modification of modeled objects, what these claims recite is different from the modification and updating disclosed in Harada. For example, each of claims 1, 2, 7, 8, 10, 11, 13, 14, and 16-19 disclose the use of graphic tools, and particular operations on those tools, that are not taught or suggested by Harada. The following are examples of claim elements not taught or suggested by Harada:

- Claims 1-2, 10-11, 13-14 each recite graphic tools "attached to said representation of said object" such that "modification of any of said graphic tools by the user will cause its associated command function to modify the geometry of the object." Harada does not disclose or suggest the use of "attached" graphic tools or modification of geometry of an object as recited by claims 1-2, 10-11, 13-14.

- Claim 16 and 18 similarly recite graphic tools "attached" to a portion of an object so that modification of any of said graphic tools by the user will cause its associated command function to modify said portion of the geometry of the object. Harada does not disclose or suggest the use of "attached" graphic tools or modification of geometry of an object as recited by claims 16 and 18.

- Claim 7, 8, and 17 similarly recites graphic tools "placed" on said object where modifying the graphical tools effects modifying the geometry of said object in accordance with the command function associated with the graphical tool. Harada does not disclose or suggest the use of "placed" graphic tools or modification of geometry of an object as recited by claims 7, 8, and 17.

It is well settled that a rejection under § 102(b) requires that the referenced prior art reference teach all elements of the rejected claim(s). Accordingly, and for at least the reason that Harada fails to teach or suggest one or more elements of each claim (e.g., elements requiring "attachment" (or "placement") of graphic tools and elements requiring modification of object geometry by modification of said command tools as recited by claims 1, 2, 7, 8, 10, 11, 13, 14, and 16-19), a rejection for anticipation under § 102(b) is improper. It is respectfully requested that the rejection be withdrawn and the claims allowed.

> **9.** **Claims 3, 9, 12, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harada et at. 5,844,563 in view of Brodsky et al. 5,960,199.**
>
> **Harada et at. teaches a computer implemented modeling system, displaying an object, receiving an input from the user specifying the attachment of a graphic tool to the object and with the graphic tool representing a command to modify the object, saving an object history an inputs, displaying the graphic tools, automatically modifying the geometry of the object in response to a command or commands, and concurrently active tools. See the abstract; figures; col. 1, line 7 to col. 2, line 14; col. 2, line 64 to col. 4, line 8; col. 5, line 31 to col. 6, line 16; col. 7, line 37 to col. 10, line 29; and the claims.**
>
> **Harada while teaching the use of sessions does not specifically state that the process can suspended and then resumed in response to a user input.**
>
> **Brodsky et al. teaches pausing and resuming in response to operator input. See col. 5, line 66 to col. 6, line 6.**
>
> **It would have been obvious to one of ordinary skill in the art to modify Harada in view of Brodsky and pause the modeling operation and resume it later in response to**

> an operator input. This would allow the operator to take a break in the design
> process and resume the design at a later time.

The rejection of claims 3, 9, 12, and 15 under 35 U.S.C. 103(a) as obvious in view of Harada and Brodsky is respectfully traversed.

As explained, supra, with respect to the Examiner's rejection of claims 1, 2, 7, 8, 10, 11, 13, 14, and 16-19 under § 102 in light of Harada, Harada fails to disclose or suggest one or more elements of each of the rejected claims (e.g., elements requiring "attachment" (or "placement") of graphic tools and elements requiring modification of object geometry by modification of said command tools as recited by the claims).

Brodsky, like Harada, fails to disclose or suggest the "attachment" (or "placement") of graphic tools and modification of object geometry by modification of said command tools.

Because neither Harada nor Brodsky, alone or together, disclose or suggest all elements of the claims (including, inter alia, elements reciting attachment or placement of graphic tools and modification of object geometry by modification of said command tools as recited by the claims), the rejection under § 103(a) is not supported and is improper. It is respectfully requested that the Examiner withdraw the rejection and allow the claims.

> 11.	Claims 4 and 5 are rejected under 35 U.S.C. 112, second
> paragraph, as being indefinite for failing to particularly point out and distinctly
> claim the subject matter which applicant regards as the invention.
>
> In claim 4, line 3, " the user interface " lacks a proper antecedent basis. It is
> suggested that " the ' be changed to -- a --. Claim 5 falls with parent claim 4.

Claim 4 has been amended in accordance with the Examiner's suggestion

> 12.	Claim 6 is objected to as being dependent upon a rejected base
> claim, but would be allowable if rewritten in independent form including all of the
> limitations of the base claim and any intervening claims.

Claim 6 has been rewritten as suggested by the Examiner. It is respectfully requested that the Examiner withdraw his objection and allow the claim.

> 13.	Claims 4 and 5 would be allowable if rewritten to overcome the
> rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action
> and to include all of the limitations of the base claim and any intervening claims.

Claim 4 has been rewritten as suggested by the Examiner. It is respectfully requested that the Examiner withdraw his objection and allow the claim.
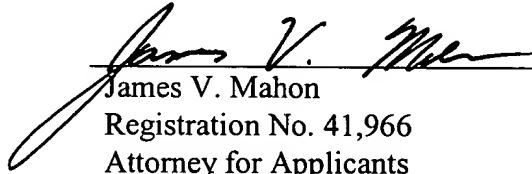
Conclusions

Claims 1, 4, and 6 have been amended. Claims 1-19 are now pending and believed to be in condition for allowance. Applicant respectfully requests that all pending claims be allowed.

Please apply any credits or excess charges to our deposit account number 50-0521.

Respectfully submitted,

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